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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
097 820643	01/13/79	HERBOTS	ML 0150

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TM220319

EXAMINER

ART UNIT	PAPER NUMBER
1751	7

DATE MAILED: 03/19/81

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.	Applicant(s)	
09/462,613	HERBOTS ET AL.	
Examiner	Art Unit	
Eisa B Elhilo	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 27-62 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 27-62 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 18) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other

DETAILED ACTION

Claims 1 and 27-62 are pending in this application.

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 37, 42, 44, 46, 49, 53 and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 37, 42, 44, 46 and 49 are indefinite because the Markush languages of these claims are improper. The phrase "selected from the group consisting of" should be followed by "and", not "and/or". See MPEP 2173.05(h)(1).

Claim 53 is indefinite because the dependency of this claim is improper.

Claim 58 is indefinite because the claim recites the phrases ("the like" and "such as") render the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "the like" and "such as"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 27- 29 and 31- 49 and 54-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oxenboll et al. (US Patent No. 5,834,280).

Oxenboll (US' P 280) teaches detergent composition comprising an oxidoreductase consisting of the amino acid residues histidine, serine and aspartic acid (see col. 12, lines 12+ and col. 26, line 6), surfactant (see col.27, lines 19+), hydrogen peroxide source (see col. 24, line 55) and fatty acids as organic acids (see col. 27, lines 5+). Regarding claims 27-29 and 31-33, the determination of the percentage amounts of the oxidoreductase and organic acid in the composition is obvious within the level of the one having ordinary skill in the art, and the person would be motivated to determine optimum amounts to get the maximum effect of the composition. Regarding claims 34-37, Oxenboll teaches detergent composition comprising fatty acids and mono- and di- triglycerides of fatty acids (see col. 27, lines 5+). Regarding claims 38-44, Oxenboll teaches that glucose oxidase oxidizes D-glucose in the presence of oxygen producing D-gluconic acid and hydrogen peroxide. The hydrogen peroxide formed, in the

presence of peroxidase. After a fixed reaction time the amount of hydrogen peroxide is measured (1 UNIT is the amount of glucose oxidase which under the standard conditions forms 1 μ mole of hydrogen peroxide per minute (see col. 11, lines 13+). Oxenboll also teaches peroxy bleach compounds such as alkali metal perborates and alkali metal percarbonates (see col. 28, lines 20+). Regarding claims 45-46, Oxenboll teaches detergent composition comprising enzymes selected from the group consisting of an amylases an α -amylase or a maltogenic exo-amylase (see col. 25, lines 65+). Regarding claims 47-49, Oxenboll teaches detergent composition may additionally contain other bleaching agents such as perborates and percarbonates with activator materials such as tetraacetythylenediamine (TAED) and nonanoyloxybenzenesulfonate (NOBS) (see col. 28, lines 20+). Regarding claim 54, Oxenboll teaches enzyme-having activity in the alkaline region (see col. 24, lines 54+). Regarding claims 55- 62, Oxenboll teaches detergent composition comprising an oxidoreductase consisting of the amino acid residues histidine, serine and aspartic acid (see col. 12, lines 12+ and col. 26, line 6), surfactant (see col.27, lines 19+), hydrogen peroxide source (see col. 24, line 55) and fatty acids as organic acids (see col. 27, lines 5+) used for fabric conditioners (see col. 28, lines 37+) and the methods of cleaning and removing bacteria from teeth, mouth, dishware and contact lenses (see col. 9, lines 19+ and col. 76, claim 13). The instant claims differ from the reference only by employing a specific species of bacterial haloperoxidase that generate the oxidoreductase enzyme. However it would have been obvious to one having ordinary skill in the art at the time the invention was made to use any of the species taught by the reference, including those of the claims, because an ordinary person would have the reasonable expectation that any of the species of bacterial haloperoxidase have similar properties

and the same use. The person of the ordinary skill in the art would expect such composition to have the same properties as those claimed, absent unexpected results.

6. Claims 1, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oxenboll et al. (US Patent No. 5,834,280) in view of Van Pee (WO 96/06909).

The disclosure of Oxenboll is summarized above. The difference between Oxenboll and the claimed invention is that the instant claims used strain *Serratia marcescens* as a source of oxidoreductase. Van Pee (WO' 909) teaches enzymatic active oxygen-releasing mixture be used as oxidizing agents for preparing chemical compounds and in bleaching, washing, cleaning and disinfecting agent. The mixture contains oxidoreductase with an α/β -hydrolase fold and a catalytic triad consisting of aminoacids serine, histidine and aspartic acid, a peroxide source, and an aqueous solution of an organic acids (see the abstract and page 2, lines 30+). Van Pee also teaches *Serratia marcescens* as a source of the oxidoreductase (see page 7, line 11). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate the surfactant system in the compositions taught by Oxenboll into the compositions taught by Van Pee, because a) Oxenboll teaches detergent compositions comprising surfactant system, b) this surfactant may be used in detergent compositions for cleaning purposes, c) both Oxenboll and Van Pee teach detergent compositions for cleaning purposes.

7. Claims 1, 27-55, 57 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Pee (WO 96/06909) in view of Figueroa et al. (US Patent No. 5,500,153).

The disclosure of Van Pee is summarized above. The difference between Van Pee and the claimed invention is that the instant claims recite detergent compositions comprising surfactant system and enzymatic bleach system.

Figueroa et al. (US' P153) teaches handwash laundry detergent compositions comprising surfactant system (see col. 3, lines 62+), peroxidase enzymes used with oxygen source (see col. 10, lines 4+) and bleaching agents catalyzed by means of a manganese compounds (see col. 13, lines 19+). The composition comprises from about 0.001% to about 5%, preferably 0.01% to about 1% by weight of a commercial enzyme preparation (see col. 9, lines 7+). The composition also contains enzymes such as amylase, cellulase and peroxidase (see col. 8, lines 58+). The detergent composition also contains another bleach system such as percarbonate and perborate and one or more bleach activators such as (NOBS) and (TAED) (see col. 10, lines 5+ and col. 11, lines 24+ and col.12, lines 5+). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate the bleaching agents in the compositions taught by Figueroa into the compositions taught by Van Pee, because a) Figueroa teaches detergent compositions comprising bleaching agents of metallic source, b) these metallo catalyst based bleach agents may be used in detergent compositions for bleaching purposes, c) both Figueroa and Van Pee teach detergent compositions for cleaning and bleaching purposes.

Conclusion

8 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B Elhilo whose telephone number is (703) 305-0217. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (703) 308-4708. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

EE
Eisa

March 15, 2001

Lorna M. Douyon
LORNA M. DOUYON
PRIMARY EXAMINER